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(54) Title: TRANSGENIC ANIMAL EXPRESSING ALZHEIMER'S TAU PROTEIN

(57) Abstract: The present invention provides transgenic non-human animals and non-human mammalian somatic and germ cells harbouring a human DNA sequence encoding Alzheimer's Disease (AD) derived tau protein, capable of inducing AD pathology in transgenic animals. Alzheimer's tau protein is expressed on specific genetic backgrounds allowing also simulation of different human diseases including hypertension, diabetes, hyper-cholesterolemia, which are associated with neurodegeneration and are considerable risk factors for AD development. Transgenic animals and cells of the present invention exhibit neurofibrillary pathology and may serve as in vivo and also in vitro assay systems for screening and developing therapeutic and preventive substances and also diagnostic markers and probes for tauopathies and AD. Furthermore these transgenic animals and cell lines derived thereof provide an in vivo and in vitro assay system for neurodegenerative disorders preferably tauopathies and AD which are the result of combinations with other disease as hypertension and others representing risk factors associated with the process of neurodegeneration.